MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Current Regulations
Utility Waste
State of Missouri

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Regulations

- The Missouri Department of Natural Resources' Solid Waste Management Program (SWMP) administers Missouri's Solid Waste Management Law and Regulations, which involves, among other things, the permitting and inspection of utility waste landfills and the approval of beneficial uses of CCR.
- 10 CSR 80-2.020 General landfill permitting process
- 10 CSR 80-11.010 Design and operation of utility waste landfills
- 10 CSR 80-2.030 General landfill closure and post-closure care
- 10 CSR 80-2.020(9) Beneficial use of solid waste
- In the state of Missouri, the permanent placement of utility waste on the land in a manner constituting disposal must conform to these regulations.

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Missouri's current utility waste regulations do not fully align with the federal CCR regulations, though there are many similarities. In some respects, the current state regulations are less stringent than the federal regulations; in other respects they are more stringent.

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Definition

- Utility Waste
  - Fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels

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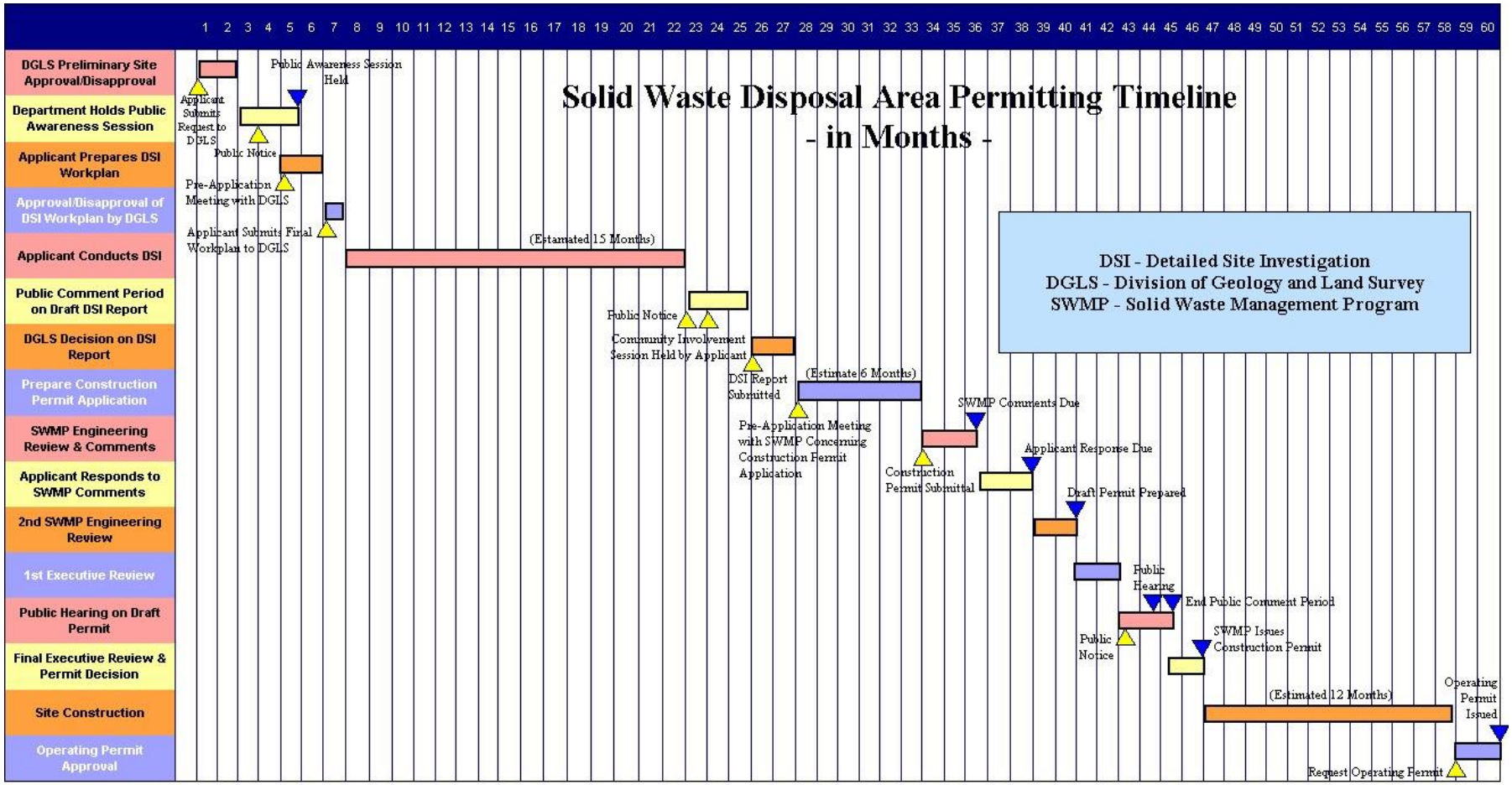
General Landfill Permitting Process



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Utility Waste Landfills in Missouri

Name	County	Permitted Boundary (acres)	Footprint (acres)	Permitting History
Labadie	Franklin	813	166.5	Permitted under 10 CSR 80-11.010 regulations
Ameren Sioux Plant	St. Charles	398	183.5	Permitted under 10 CSR 80-11.010 regulations.
Iatan	Platte	135	120	Permitted under 10 CSR 80-11.010 regulations.
James River Power Station	Greene	69	34	Permitted in 1992 as a special waste landfill.
KLCP Montrose	Henry	128	47.8	Permitted in 1992 as a special waste landfill. Horizontally expanded in 2010 and permitted under 10 CSR 80-11.010.
New Madrid	New Madrid	609.6	250	Permitted under 10 CSR 80-11.010 regulations.
Sibley	Jackson	90	47	Permitted in 1988 as a special waste landfill. Horizontally expanded in 2009 and permitted under 10 CSR 80-11.010.
John Twitty Energy Center	Greene	42	42	Permitted in 1980 as a special waste landfill.
Thomas Hill	Randolph	190	190	Permitted in 1985 as a special waste landfill.

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10 CSR 80-11.010 Design and Operation of Utility Waste Landfills (UWLF)

• Placement above ground water table	• Requires 1 foot separation
• Wetlands determination	• Required
• Fault area determination	• Required
• Seismic impact zone	• Required
• Unstable areas	• Required
• Liner	• Composite liner – 2 feet 1 x 10^{5} cm/sec. – Geomembrane Or - 2 feet 1 x 10^{7} cm/sec.
• Leachate control	• Required

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Design (continued)

• Fugitive dust emissions	• Required
• Run-on and run-off controls	• Required
• Surface water requirements	• Required
• Groundwater monitoring	• Required
• Groundwater Sampling and Analysis	• Required
• Corrective Action	• Required
• Closure Criteria	• Required
• Post closure care	• Required

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UWLF

• Financial assurance	• Required for closure costs
• Construction Quality Assurance	• Required for liner and cap construction
• Survey control	• Required
• Operating Manuals	• Required
• Survey plats	• Required
• Easement, Notice, and Covenant	• required

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Beneficial use of CCR's

10 CSR 80-2.020 Permit Issuance, Construction Permits, Operating Permits, Emergency Permits and Exemptions

(9) Permit Exemptions.

(A) The following types of activities, solid waste disposal areas or solid waste processing facilities are not required to obtain a permit provided that pollution, a public nuisance or a health hazard is not created:

11. The beneficial use of bottom ash or boiler slag generated primarily from the combustion of coal or other fossil fuels for snow and ice control; and

12. The beneficial use of fly ash generated primarily from the combustion of coal or other fossil fuels for concrete/flowable fill additive.

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10 CSR 80-2.020 (9)

(F) The department may grant a general exemption for the beneficial use of type C fly ash and associated bottom ash and boiler slag generated primarily from the combustion of coal or other fossil fuels for beneficial use as road base or structural fill. The beneficial use of type C fly ash and bottom ash or boiler slag for road base will be allowed if the total mixture of soil and ash beneath the road will not exceed two feet (2'). The beneficial use of type C fly ash and bottom ash or boiler slag for structural fill will be allowed provided the area to be disturbed is less than five (5) acres in size and the maximum depth of ash will not exceed two feet (2'). The applicant must renew the exemption when the source of coal is changed or there is a change in the processing of the coal which has an effect on the ash produced. The renewal must be submitted to the Solid Waste Management Program at least thirty (30) days prior to such a change.

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10 CSR 80-2.020 (9) (cont.)

(G) The department may grant a general exemption for the beneficial use of type C fly ash generated primarily from the combustion of coal or other fossil fuels for beneficial use as soil amendment or for soil stabilization. The beneficial use of type C fly ash for soil amendment will be allowed if the total mixture of soil and ash used will not exceed six inches (6"). The beneficial use of type C fly ash for soil stabilization will be allowed provided the area disturbed is less than five (5) acres in size and the maximum depth of ash will not exceed two feet (2'). The applicant must renew the exemption when the source of coal is changed or there is a change in the processing of the coal which has an effect on the ash produced. The renewal must be submitted to the Solid Waste Management Program at least thirty (30) days prior to such a change.

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10 CSR 80-2.020 (9) (cont.)

(H) The department may grant an exemption for the beneficial use of type C fly ash and associated bottom ash and boiler slag in amounts greater than those specified in subsections (9)(F) and (G) above, as long as the beneficial use activity has a permit or exemption from the Missouri Clean Water Commission.

(I) The department may grant a general exemption for the beneficial use of bottom ash or boiler slag for daily cover in a landfill.

(J) Any request for a general or specific exemption listed above shall be accompanied by information that describes why the use is beneficial and an explanation/evaluation of the environmental impact associated with the beneficial use.

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10 CSR 80-2.020 (9) (cont.)

(B) The department may grant an exemption from having to obtain a solid waste disposal area permit for a proposal to beneficially reuse solid waste, provided that beneficial use and/or reclamation can be demonstrated and provided that pollution, a public nuisance or a health hazard will not be created. In the event a person desires to request an exemption from the requirement to obtain a permit, that person shall submit a detailed, written request to the department which includes the following information:

1. A detailed explanation of the beneficial use or reclamation that supports the request;

2. A detailed explanation with supporting documentation identifying the site location, surrounding land use, and site characteristics;

3. An estimate of the quantity of waste needed to complete the project, the length of time required for completing the project and documentation specifying the source of the waste;

4. A detailed description of the physical and chemical characteristics of the waste, background soils and water quality immediately within and/or adjacent to the project area. The description shall include supporting laboratory test data. The appropriate laboratory tests shall be determined in conjunction with the department, and shall include, at a minimum, Toxicity Characteristic Leaching Procedure (TCLP) testing analyses or modified TCLP testing analyses. Details regarding locations of samples and sampling and testing methods shall be provided.

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10 CSR 80-2.020 (9) (cont.)

5. Verification that the placement of the waste will be kept above the seasonal high groundwater table, unless a variance is obtained from the Water Pollution Control Program (WPCP).

6. A detailed description of the proposed operational procedures for waste removal from the generator, transport, placement, compaction, dust control, erosion control and procedures for protecting the general aesthetics of the site;

7. Provisions for closing the area--

A. A description of the source, quality and quantity of cover required; and

B. A description of the type of vegetation to be established to prevent erosion; and

8. The exemption request must also include the following:

A. Name of the owner(s) of the property on which the proposed beneficial reuse operation will be located. If the owner differs from the person requesting the exemption, the permit exemption request shall include a statement signed by the owner stating his/her awareness of the beneficial use request and his/her approval of the operation;

B. Name of the operator(s) of the proposed operation;

C. A map showing land use within one thousand feet (1,000') of the proposed operation;

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10 CSR 80-2.020 (9) (cont.)

D. A management plan that describes and includes:

(I) Basic site design;

(II) Size of buffer zone;

(III) Site drainage control;

(IV) A list of the waste material to be beneficially reused;

(V) Quality and quantity of incoming waste material;

(VI) Type of technology to be used;

(VII) Odor and vector control and mitigation procedures; and

(VIII) Contingency plan (what steps will be taken to correct any problems that may occur as a result of the operation);

E. A copy of the application for any applicable Water Pollution Control Program permits or approvals;

F. A copy of the application for any applicable Air Pollution Control Program permits or approvals;

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10 CSR 80-2.020 (9) (cont.)

G. Evidence of compliance with local zoning and planning requirements;

H. Emergency contact phone number(s);

I. Final use or disposition of the material to be beneficially reused; and

J. A statement indicating what steps will be taken to ensure unacceptable waste is not received and verification that the unloading of waste will be supervised.